

Claim 1 (currently amended): A device for collecting biometric data, in particular finger prints, the device having an optically active detector for recording the surface of body areas, characterised in that in the beam path (7) between the surface (33) and the detector (1) a mirror (2) is provided.

Claim 2 (currently amended): The device according to claim 1, characterised in that the mirror (2) is designed either curved or bent, in particular like a U (21) or a half-ring.

Claim 3 (currently amended): The device according to claim 1 ~~one or both of the preceding claims~~, characterised in that the mirror (2) is shaped as ring mirror (20).

Claim 4 (currently amended): The device according to claim 1 ~~one or more of the preceding claims~~, characterised by a conical shape of the mirror (2).

Claim 5 (currently amended): The device according to claim 1 ~~one or more of the preceding claims~~, characterised in that the partial surface (32) of the surface (33) which can be scanned by the mirror (2) is small in the relation to the complete surface (33) of the body part (3) which has to be recorded.

Claim 6 (currently amended): The device according to claim 1 ~~one or more of the preceding claims~~, characterised in that an illumination (5) is provided for the body region (3) which has to be scanned.

Claim 7 (currently amended): The device according to claim 1 ~~one or more of the preceding claims~~, characterised in that as

illumination (5) a green light source is provided.

Claim 8 (currently amended): The ~~Ø~~device according to claim 1 ~~one or more of the preceding claims~~, characterised in that the illumination (5) is arranged below the body region (3).

Claim 9 (currently amended): The ~~Ø~~device according to claim 1 ~~one or more of the preceding claims~~, characterised in that the illumination (5) is stripe-like, in particular designed as LED array (50).

Claim 10 (currently amended): The ~~Ø~~device according to claim 1 ~~one or more of the preceding claims~~, characterised by a semipermeable mirror (2) designed as partial mirror for introducing the light of an illumination (5) into the beam path (7).

Claim 11 (currently amended): The ~~Ø~~device according to claim 1 ~~one or more of the preceding claims~~, characterised in that the path of rays between mirror (2) and detector (1) is either parallel or acute to the longitudinal extension (34) of the body region (3) which has to be recorded.

Claim 12 (currently amended): The ~~Ø~~device according to claim 1 ~~one or more of the preceding claims~~, characterised in that in the beam path (7) between the surface (33) and the detector (1), in particular between mirror (2) and detector (1), an objective (10) is provided.

Claim 13 (currently amended): The ~~Ø~~device according to claim 1 ~~one or more of the preceding claims~~, characterised in that the magnification of the objective is chosen in such a way that the local element which has to be defined on the body is imaged at least on one element (pixel) of the detector.

Claim 14 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised by a  
telecentric imaging.

Claim 15 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised by a front  
lens of the objective which corresponds at least to the size of  
the object.

Claim 16 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised by a  
rectangular front lens.

Claim 17 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised by a relative  
movement (4) between the body region (3) and at least the mirror  
(2).

Claim 18 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised by a relative  
movement (4) either parallel or essentially parallel to the  
longitudinal extension (34) of the body region (3) which has to  
be recorded.

Claim 19 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised in that at  
least the mirror (2) is stationary during recording, and the  
relative movement (4) is deducted from the movement of the body  
region (3).

Claim 20 (currently amended): The Ødevice according to claim 1  
~~one or more of the preceding claims~~, characterised by a movement  
of the mirror (2) at least during recording the body region (3).

Claim 21 (currently amended): The ~~D~~device according to claim 1 ~~one or more of the preceding claims~~, characterised in that detector (1) and mirror (2) as well as, if necessary, the objective are combined as sensor head, and the sensor head can move, in particular move linear.

Claim 22 (currently amended): The ~~D~~device according to claim 1 ~~one or more of the preceding claims~~, characterised by contact-free scanning of the body region (3).

Claim 23 (currently amended) A ~~E~~collection arrangement for simultaneously collecting biometric data, like fingerprints, of different body regions, in particular fingers, the collection arrangement being equipped with at least two devices, in particular according to one or more of the preceding claims, for collecting biometric data, the device having at least one optically active detector for recording the surface of body regions, and a first device being provided for recording a first body region, and a second device being provided for recording a second body region, and the collection arrangement having a spreading device which spreads apart the body regions in such a way that even lateral recordings of the body regions become possible by means of the detector.

Claim 24 (currently amended): A ~~E~~collection arrangement according to claim 23 ~~the preceding claim~~, characterised in that the spreading device (80) is designed as stoppers (82), in particular as cylindrical stoppers, which have to be arranged between the body regions, in particular the fingers (30) of a hand (35), and the mirrors of the device are located below the body regions, respectively the fingers.

Claim 25 (currently amended): The ~~E~~collection arrangement

according to claim 23 ~~one or both of the preceding claims 23 to 24~~, characterised in that the spreading device (80) effects a spreading of the fingers of a hand introduced into the collection arrangement of 10° to 20° each, preferably about 15°, between two adjacent fingers (30).

Claim 26 (currently amended): The ~~E~~collection device according to claim 23 ~~one or more of the preceding claims 23 to 25~~, characterised in that the collection arrangement (8) has a supporting surface (80) in which slots or openings with optically transparent covers are provided, and the mirrors (2) are each arranged in the region of the slot, respectively indentation.

Claim 27 (currently amended): The ~~E~~collection arrangement according to claim 23 ~~one or more of the preceding claims 23 to 26~~, characterised in that the supporting surface (80) forms grooves for receiving fingers (30), respectively the palm, and the arrangement of the grooves effect a spreading device.

Claim 28 (currently amended): The ~~E~~collection arrangement according to claim 23 ~~one or more of the preceding claims 23 to 27~~, characterised in that two, in particular adjacent, devices (9) share an objective.

Claim 29 (currently amended): The ~~E~~collection arrangement according to claim 23 ~~one or more of the preceding claims 23 to 28~~, characterised in that for each finger (30) an individual, movable sensor head is provided, and adjacent sensor heads can each move in the opposite direction of each other.

Claim 30 (currently amended): The ~~E~~collection arrangement according to claim 23 ~~one or more of the preceding claims 23 to 29~~, characterised in that for each finger (30) an individual,

movable sensor head is provided, and each sensor head is movable longitudinally, in particular in the direction of the longitudinal extension of the respective finger.

Claim 31 (currently amended): The ~~E~~collection arrangement according to claim 23 ~~one or more of the preceding claims 23 to 30~~, characterised by a locking arrangement of the hand and/or the individual fingers on or in the collection arrangement.

Claim 32 (currently amended): A ~~M~~method for collecting biometric data, for example a finger print, where a detector records at least one picture of a first partial surface of the surface which has to be recorded, after that occurs a relative movement between the detector and the body region, and after that the detector records at least one picture of a second partial surface of the surface of the body region which has to be recorded.

Claim 33 (currently amended): A ~~M~~method for collecting biometric data, for example a finger print, where a sensor head comprising a detector and an imaging optic records at least one picture of a first partial surface of the surface of the body region which has to be recorded, after that a relative movement occurs between the body region and the sensor head, respectively parts of the sensor head, and after that the sensor head records at least one picture of a second partial surface of the surface of the body region which has to be recorded.

Claim 34 (currently amended): The ~~M~~method according to claim 32 ~~one or both of the preceding claims~~, characterised in that the relative movement is carried out either parallel or essentially parallel to the longitudinal extension of the body part.

Claim 35 (currently amended): The ~~M~~method according to claim 32

~~one or more of the preceding claims 32 to 34~~, characterised in that the detector files the picture recorded from the partial surfaces correlated in their order in a storage.

Claim 36 (currently amended): The Mmethod according to claim 32 ~~one or more of the preceding claims 32 to 35~~, characterised in that the picture of the first and the second partial surface overlap at least partly.

Claim 37 (currently amended): The Mmethod according to claim 32 ~~one or more of the preceding claims 32 to 36~~, characterised in that in the beam path between the body region and the detector a mirror at least partially curved, respectively bent is provided, if necessary as part of the imaging optic, and the detector records a picture of the curved partial surface.

Claim 38 (currently amended): The Mmethod according to claim 32 ~~one or more of the preceding claims 32 to 37~~, characterised in that in a picture processing module the pictures filed in the storage are combined to a three-dimensional image of the recorded surfaces.

Claim 39 (currently amended): The Mmethod according to claim 32 ~~one or more of the preceding claims 32 to 38~~, characterised in that the picture processing module equalises the image and/or the single pictures.